

R E M A R K S

Claims 1 to 4, 6, 7, 9 to 12, 14 and 15 as presented with applicants' previous paper are currently pending in the application. Claims 5, 8, 13 and 16 to 22 were canceled.

Applicants' claims are drawn to a method of increasing and quantitatively modifying the content of flavonoids and phenolic constituents in a plant selected from grapevines and hops in which the plant is treated with a particular acylcyclohexanedione as represented by applicants' formula (I),<sup>1)</sup> to a method of producing a plant preparation in which the treated plants are harvested and processed,<sup>2)</sup> certain wine grape preparations obtained from treated grapevines,<sup>3)</sup> and certain compositions selected from juices, teas, extracts, fermentation products and fermentation residues prepared from the treated plants.<sup>4)</sup>

Claims 1 to 4, 6, 7, 9 to 12, 14 and 15 stand rejected under 35 U.S.C. §103(a) as being unpatentable in light of the teaching of *Motojima et al.* (US 4,866,201).

Asserting that "*an ornamental plant is hop plant and a grape plant is a fruit plant*"<sup>5)</sup> the Office action proposes that "*Motojima et al suggests [sic] a method of regulating the growth of ornamental plants as well as plant fruiting (column 20 line 25) comprising applying to the ornamental plants or fruit plant (orchard) a composition comprising instant compounds of formula I. See abstract, column 20 lines 45-63.*"<sup>6)</sup> Applicants respectfully urge that the summary of the prior art teaching is inadequate to fairly represent what the reference reasonably conveyed to one having ordinary skill in the pertinent art.

The abstract of *Motojima et al.* merely provides that the cyclohexane compounds which are addressed in the reference exhibit "*useful plant-growth regulating effects on crop-plants and also non-crop plants such as lawn*"<sup>7)</sup> and is, as such, by far too generic to reasonably direct a person of ordinary skill in the pertinent art to any particular plants, or any particular plant-growth regulating effects which may be achieved.

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- 1) Claims 1 to 4 and 9.
  - 2) Claims 10 to 12 and 14.
  - 3) Claim 6.
  - 4) Claims 7 and 15.
  - 5) Office action page 2, lines 18 and 19.
  - 6) Office action page 2, lines 13 to 18.
  - 7) Post-formula lines 8 and 9 of the abstract of US 4,866,201.

The nature of the plant-growth regulating effects of the cyclohexane compounds which are addressed in the reference are explained in col. 20, indicated lines 13 to 29, which section is reproduced below (*emphasis added*):

*The plant-growth regulating effects of the new compounds of the general formula (I) and the salts thereof are manifested predominantly as a stunting or dwarfing effect on the vegetative growth of plants, but other various plant-growth regulating effects may be manifested by modifying the nature of plants to be treated and the means, times and rates of application of the compounds or salts. Such plant-growth regulating effects which may be induced by the new compound of this invention include promotion of rooting, reduction in risk of lodging, promotion of sideshooting and root growth, maintenance of green color of stems and leaves, promotion or delay of flowering, promotion of fruiting and ripening, and increase in resistances to temperature hindrance, to phytotoxicity caused by herbicides and to fungal or bacterial diseases. These various effects are not always manifested at a time.*

Accordingly, whether plant-growth regulating effects beyond a stunting or dwarfing effect may be manifested depends *inter alia* on the nature of the plants. The last sentence of the reproduced section further emphasizes that it is unpredictable whether any one of the recited “*other various plant-growth regulating effects*” may be manifested at all. The reference therefore cannot be said to convey to a person of ordinary skill that the application of any one of the prior art compounds to a particular plant may reasonably be expected to successfully promote fruiting and/or ripening in that plant.

The plants and areas which are deemed of interest as targets in accordance with the reference are addressed in col. 20, indicated lines 30 to 63, which section is reproduced below (*emphasis added*):

*The new compounds (including the salts) of this invention can control internode elongation of cereals and prevent or reduce lodging of rice, wheat, barley, maize and the other crop-plants by foliage and/or soil-treatment. Application of the compound of this invention to seedlings of aquatic rice and growing vegetables can lead an improvement in quality, rooting after transplanting, and resistance to low temperature.*

*The foliage treatment with the new compound during the vegetative stage of crop plants, e.g. aquatic rice, wheat and barley also induces shortening of top leaves or improvement in leaf orientation and hence increases in light interception and utilization which will enhance the ripening and increase the overall grain yield of such crop-plants.*

*Moreover, the compound of this invention may suppress spindly growth of flowers, ornamen-*

tal plants and horticultural plants which may be caused due to high temperature or sunshine shortage in plantation in a greenhouse.

The compound of the invention which exhibits the above-mentioned plant-growth regulating effects are very useful not only for agricultural and horticultural treatment but also for control of plant growth in non-crop lands. For instance, when the compound of this invention is applied onto lawns in park, playing field, golf link, airport or embankment or undergrowth grasses in orchard or pasture land, it is possible to inhibit the overluxuriant growth, to reduce the number of reaping and/or to facilitate the mowing operations as usually required for maintenance. Further, application of the new compound of this invention onto swards can promote sideshooting and increase the planting density of swards.

The emphasized part in the third paragraph of the reproduced section makes clear that the reference does not generally suggest to apply the cyclohexane compounds to ornamentals. Rather, the reference suggests that the application may suppress spindly growth caused by inadequacies of greenhouse conditions. Similarly, the emphasized part in the fourth paragraph of the reproduced section makes clear that the reference does not suggest a treatment of fruit plants as proposed in the Office action. Rather, the reference refers to the treatment of “*undergrowth grasses in orchard or pasture land.*” Therefore, the proposition that “*Motojima et al suggests [sic] a method of regulating the growth of ornamental plants as well as plant fruiting (column 20 line 25) comprising applying to the ornamental plants or fruit plant (orchard) a composition comprising instant compounds of formula I. See abstract, column 20 lines 45–63,*”<sup>6)</sup> is not fairly supported by the teaching of the reference. It is error, and impermissible in a determination under Section 103(a), to pick and choose from the prior art only so much as will support a given position as well as taking the applicant’s disclosure as a map, or to pick only so much as will support a given position, to the exclusion of other parts of the reference which are necessary to the full appreciation of what such reference fairly suggests to one of ordinary skill in the art.<sup>8)</sup>

The Office action further proposes that “*the instant step of applying the compound of formula I to the hop and/or grapevine plant in the claim is also carried out by Motojima et al; thus, it [lacuna] obvious that the flavonoids and other phenolic compounds would increase in the ornamental and fruit plants of Motojima et al.*”<sup>9)</sup> However, the reference nowhere mentions hops or grapevines, or grapes for that matter. As such, the proposal is not support by the prior art but is based solely on information gleaned from applicants’ disclosure. However, in determining ob-

8) *In re Wesslau*, 353 F.2d 238, 147 USPQ 391, 393 (CCPA 1965).

9) Office action page 2, lines 19 to 22.

viousness the decisionmaker has to return to the time at which the invention was made and cannot rely on information or knowledge gleaned from an applicant's invention.<sup>10)</sup>

As the reference does not mention hops or grapevines, the reference also cannot be deemed to corroborate or suggest that a person of ordinary skill in the pertinent art would reasonably consider hop plants to fall within the realm of ornamental plants, or would reasonably consider grapevines to be grown in orchards. As evidenced by the enclosed copy of an entry regarding hops in Wikipedia, hops are typically used for flavoring purposes in beverages, e.g., beer, and as herbal medicine, and the plants are usually grown in a hop field, hop garden or hop yard. No indication is evident that hop plants may reasonably be considered by a person of ordinary skill to belong to ornamentals. Incidentally, the respective Wikipedia entry also mentions in the paragraph titled "*History*" that hops were in the past condemned in Britain as a "*wicked and pernicious weed.*"<sup>11)</sup> Applicants also are unaware of evidence which may reasonably corroborate that a person of ordinary skill would reasonably consider grapevines to be grown in orchards. "*An orchard is an intentional planting of trees or shrubs maintained for food production. Orchards comprise fruit or nut producing trees grown for commercial production*"<sup>12)</sup> whereas grape-bearing vines are grown in a vineyard.<sup>13)</sup> In the event that the Examiner wishes to persist in the argument that a person of ordinary skill would reasonably consider hops to be ornamentals, and would reasonably consider grapevines to be grown in orchards, even in light of the evidence presented by applicants, it is respectfully requested that the Examiner cite a suitable authority, or swear out an affidavit in accordance with 37 C.F.R. §1.104(d)(2) that such information is within his personal knowledge.

The Office action further proposes that "[a]ccording to KSR, it would have been obvious to try applying the instant compound of formula I to any ornamental plant and any fruit plant, including the hop plant and grapevine plant as claimed, since Motojima et al. teach broadly the application of the compound of formula I to ornamental plants and fruit plants."<sup>14)</sup>

As noted in the foregoing, *Motojima et al.* cannot be deemed to teach the application to fruit plants. Rather, the reference mentions the treatment of undergrowth grasses in orchards. The reference also cannot be deemed to teach broadly the application to ornamental plants. Rather, the reference mentions the possibility of applying the cyclohexane compounds to ornamentals grown in a

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10) *Uniroyal, Inc. v. Rudkin-Wiley Corp.*, 837 F.2d 1044, 5 USPQ2d 1434 (Fed. Cir. 1988), cert. denied, 488 U.S. 825 (1988); *Gillette Co. v. S.C. Johnson & Son, Inc.*, 919 F.2d 720, 16 USPQ2d 1923 (Fed. Cir. 1990).

11) Cf. the "Description" section of <http://wikipedia.org/wiki/Humulus>; copy enclosed.

12) Cf. the first paragraph of <http://wikipedia.org/wiki/Orchard>; copy enclosed.

13) Cf. the first paragraph of <http://wikipedia.org/wiki/Vineyard>; copy enclosed.

14) Office action page 2, line 22, to page 3, line 2, and Office action page 3, lines 7 to 10.

greenhouse to suppress spindly growth caused by inadequate greenhouse conditions. Moreover, as also addressed in the foregoing, the allegation that a person of ordinary skill in the art may reasonably consider hops to belong to ornamental plants, or may reasonably consider grapevines to be grown in orchards, is uncorroborated by the reference or by evidence.

In rejecting claims under 35 U.S.C. §103, it is incumbent upon the Office to establish a factual basis to support the legal conclusion of obviousness.<sup>15)</sup> The analysis under 35 U.S.C. §103 “need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ.”<sup>16)</sup> However, “rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.”<sup>17)</sup> The assertions and propositions made in alleged support of the rejection of applicants’ claims on the basis of the teaching of *Motojima et al.* are merely conclusory statement which lack the rational underpinning which is necessary to support a conclusion of obviousness.

Also, as concerns circumstances in which what was obvious to try might show obviousness under Section 103, the Supreme Court stated: “When there is a design need or market pressure to solve a problem and there are a finite number of identified, predictable solutions, a person of ordinary skill has good reason to pursue the known options within his or her technical grasp. If this leads to the anticipated success, it is likely the product not of innovation but of ordinary skill and common sense. In that instance the fact that a combination was obvious to try might show that it was obvious under § 103.”<sup>18)</sup>

Even assuming *arguendo* that hops may be considered ornamental plants and grapevines may be considered as growing in orchards, the teaching of *Motojima et al.* cannot be deemed to offer a finite number of identified, predictable solutions to a design need or market pressure to solve a particular problem. MPEP §2143.E. explains that a rejection on the basis of the “*obvious-to-try*” rationale addressed by the Supreme Court has to articulate the following:

(1) *a finding that at the time of the invention, there had been a recognized problem or need in the art, which may include a design need or market pressure to solve a problem;*

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15) See *In re Fine*, 837 F.2d 1071, 1073, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988).

16) *KSR Int’l v. Teleflex Inc.*, 127 S.Ct. 1727, \_\_\_, 82 USPQ2d 1385, 1397 (2007).

17) *KSR Int’l v. Teleflex, Inc.*, 127 S.Ct. 1727, \_\_\_, 82 USPQ2d 1385, 1396 (quoting *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006)).

18) *KSR International Co. v. Teleflex Inc.*, 550 U.S. 398, 421 (2007) (internal citation omitted) (emphasis added).

- (2) a finding that there had been a finite number of identified, predictable potential solutions to the recognized need or problem;
- (3) a finding that one of ordinary skill in the art could have pursued the known potential solutions with a reasonable expectation of success; and
- (4) whatever additional findings based on the *Graham* factual inquiries may be necessary, in view of the facts of the case under consideration, to explain a conclusion of obviousness.

The Office action at the least fails to articulate any one of the findings (1) to (3). In fact, on the basis of the teaching of *Motojima et al.*, the particularities of the subject matter defined by applicants' claims cannot be deemed to fall within the realm of predictable potential solutions to a recognized problem or need, and also cannot be deemed to be associated with the necessary reasonable expectation of success. However, "[i]f any of these findings cannot be made, then this ['obvious to try'] rationale cannot be used to support a conclusion that the claim would have been obvious to one of ordinary skill in the art."<sup>19)</sup>

The legal concept of *prima facie* obviousness is a procedural tool of examination which allocates who has the burden of going forward with the production of evidence in each step of the examination process. The examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. If the examiner does not produce a *prima facie* case, then the applicant is under no obligation to submit evidence of nonobviousness.<sup>19)</sup> For the foregoing reasons, the Office action cannot be deemed to have produced a *prima facie* case of obviousness. As such, applicants should not be under any obligation to submit evidence of nonobviousness. However, such data are of record and the Office action inquired as to the showings made by applicants as to which flavonoids and phenolic compounds were increased following the treatment of hops and grapevine plants.<sup>20)</sup>

For clarification it is noted that the data provided in the application indirectly show that the treated grapevines exhibited a quantitative modification of the flavonoid content. Example 3 on page 11 of the application illustrates that the lyophilisate of untreated and treated Dornfelder wines was weighed exactly and treated with such an amount of DMSO that a stock solution with 10 mM total flavonoids resulted. This stock solution, after further dilution, was used for the experiments. As shown on page 12 of the application, the samples from untreated Dornfelder wine showed no

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19) MPEP §2142, citing *In re Rinehart*, 531 F.2d 1048, 189 USPQ 143 (CCPA 1976); *In re Linter*, 458 F.2d 1013, 173 USPQ 560 (CCPA 1972); *In re Saunders*, 444 F.2d 599, 170 USPQ 213 (CCPA 1971); *In re Tiffin*, 443 F.2d 394, 170 USPQ 88 (CCPA 1971), amended, 448 F.2d 791, 171 USPQ 294 (CCPA 1971); *In re Warner*, 379 F.2d 1011, 154 USPQ 173 (CCPA 1967), *cert. denied*, 389 U.S. 1057 (1968).

20) Office action page 3, lines 3 to 6.

effect on cholesterol biosynthesis. In contrast thereto, cholesterol biosynthesis was inhibited significantly by samples of the treated grapes. As the flavonoid concentrations were the same in all samples (whether derived from untreated or from treated grapes), the beneficial effect of samples of treated grapes on cholesterol biosynthesis must be attributed to a qualitatively modified content of flavonoids. The showing as to hops, similarly is indirect. The data in Dr. Rademacher's Declaration of June 11, 2007, illustrate that the treatment of hops reduced the content of quercitrin, and thus a qualitatively modified the content of flavonoids. Moreover, an increase of 3-deoxy flavonoids is concluded on the basis of the publication of *Roemmelt et al.* The reference reports that leaves of young apples which were treated prohexadione calcium showed a dramatically reduced content of the flavonoid quercitrin as well as hyperin, isoquercitrin and rutin (page 711, 2<sup>nd</sup> col., 1<sup>st</sup> full paragraph). At the same time, luteoliflavan, a 3-deoxyflavan which normally does not occur in apple, was found (page 710, 2<sup>nd</sup> col., 1<sup>st</sup> paragraph). Based on the analogous behavior of apple and hops with respect to the quercitrin content, Dr. Rademacher concluded that the content of 3-deoxyflavans in hops is also increased by the treatment.

In light of the foregoing and applicants' previous remarks,<sup>21)</sup> it is respectfully urged that the subject matter of applicants' Claims 1 to 4, 6, 7, 9 to 12, 14 and 15 is patentable under the provisions of Section 103(a) in light of the teaching of *Motojima et al.* Withdrawal of the rejection is therefore deemed appropriate and is respectfully solicited.

The foregoing explanations and remarks essentially equally apply to the rejection of Claims 1, 2 and 10 to 12 under 35 U.S.C. §103(a) as being unpatentable in light of the teaching of *Miyazawa et al.* (US 5,015,283).

Again asserting that "*ornamental plants are hop plants*"<sup>22)</sup> the Office action proposes that "*Miyazawa et al suggests [sic] a method of regulating the growth of ornamental plants comprising applying to the ornamental plants a composition comprising instant compounds of formula I. See abstract, column 1 line 39 – column 2 line 45.*"<sup>23)</sup>

For the reasons already set forth in the foregoing, applicants respectfully disagree that a person of ordinary skill in the pertinent art would reasonably consider hops to fall within the realm of "*ornamental plants.*" The reference does not mention hops or any plant which a person of ordi-

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21) Applicants' papers of February 05, 2009, June 26, 2008, December 18, 2007, August 26, 2008, February 05, 2009, and June 26, 2009, each of which is herewith incorporated by reference.

22) Office action page 3, line 20.

23) Office action page 3, lines 15 to 17.

nary skill in the art may reasonably consider to be related to hops. Moreover, *Miyazawa et al.* explain in col. 4, indicated line 41, to col. 5, line 13 (*emphasis added*):

*The plant growth regulating activities of the plant growth regulating composition of the present invention are primarily elongation retarding activities and internode elongation retarding activities. However, various plant growth regulating activities will be obtained by changing the plant to be treated, the manner of application, the timing of application or the dose of the active ingredients. Excellent plant growth regulating effects can be obtained at a dose substantially lower than the dose in a case where the two types of compounds are used independently. By the application to the foliage of e.g. rice, wheat, barley, rye or corn, it is possible to control the internode elongation, to shorten the stem or to make the stem stout without adversely affecting the yield or quality of the product, whereby it is possible to prevent or reduce lodging due to wind or rain. Further, by the application to paddy rice, vegetables, flowers and ornamental plants, it is possible to improve the quality of seedlings and to make healthy seedlings excellent in transplantation and in the resistance against low temperature troubles. By the application at the growing stage of paddy rice, wheat, barley or rye, it is possible to shorten the length of the upper leaf or to improve the steric disposition of leaves, whereby the photo-utilization efficiency is improved and the percentage of ripened grains increases, and it is thereby possible to improve the yield and the quality of the product. Further, in the cultivation in a green house, the spindly growth can be prevented without bringing about an adverse effect even to a plant of the type wherein no adequate prevention of spindly growth can be obtained by a single use of each compound due to lack of sunlight, and thus it contributes to the improvement of the product quality. Further, the plant growth regulating composition of the present invention is capable of controlling the growth of plants in e.g. a non-agricultural field. For example, by the application to the lawn in a park, playground or road, it is possible to control the elongation or overgrowth, whereby the number of mowing operations can be reduced, or the mowing operation can be simplified.*

As such, the reference makes clear that the occurrence of particular plant-growth regulating effects, and the nature of any effect which may occur, *inter alia* depends upon the nature of the plants. Nonetheless, the Office action alleges that “*the step of applying the compound of formula I to the hop plant in the claim is also carried out by Miyazawa; thus, it obvious that the flavonoids and other phenolic compounds would increase in the ornamental plants of Miyazawa.*” As the reference is silent as to hops or any reasonably related plant, the reference cannot be said to carry out the step of applying the appropriate compound to hops.



To the extent that the respective argument is based on an allegation that the particular effect is inherent in the teaching of the reference, it is respectfully urged that this approach cannot be deemed to support that the subject matter of applicants' claims was *prima facie* obvious in light of the teaching of *Miyazawa et al.* The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherence of that result or characteristic.<sup>24)</sup> *"To establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.'"*<sup>25)</sup> Taking applicants' disclosure as a map, the Office action construes certain circumstances, and relies on the particular results and effects disclosed by applicants. However, there is no extrinsic evidence which makes clear that the missing descriptive matter is necessarily present in the teaching of the reference, i.e., extrinsic evidence which supports that the particular results and effects necessarily occur upon treatment of any and all plants which are mentioned, or which may be suggested, by *Miyazawa et al.*'s teaching. It is well settled that inherence of an advantage or property and its obviousness are entirely different questions and that an inherent advantage or property which is achieved only under a given set of circumstances is not *necessarily* known or apparent to a person of ordinary skill. Obviousness cannot be predicated on what is unknown.<sup>26)</sup> As such, the teaching of *Miyazawa et al.* cannot be deemed to render the subject matter obvious within the meaning of Section 103(a).

The assertions and propositions made in alleged support of the rejection of applicants' claims on the basis of the teaching of *Miyazawa et al.* are merely conclusory statements which lack the rational underpinning which is necessary to support a conclusion of obviousness. Moreover, upon review of the reference and evaluation of what the reference reasonably conveyed to a person of ordinary skill in the pertinent art, the teaching of *Miyazawa et al.* cannot be deemed to establish that the subject matter of applicants' claims was obvious within the meaning of Section 103(a).

Therefore, it is respectfully urged that the subject matter of applicants' Claims 1, 2 and 10 to 12 is patentable under the provisions of Section 103(a) in light of the teaching of *Miyazawa et al.* Withdrawal of the rejection is therefore deemed appropriate and is respectfully solicited.

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24) *In re Rijckaert*, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993).

25) *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999) (citations omitted; emphasis added).

26) Cf. *In re Rijckaert*, 9 F.3d 1531, 28 USPQ2d 1955 (Fed. Cir. 1993).

Further, Claims 1 to 4, 6, 7, 9 to 12, 14 and 15 stand rejected under 35 U.S.C. §103(a) as being unpatentable in light of the teaching of *Evans* (US 6,022,831) which relates to the control of fire blight (*Erwinia amylovora*) in trees, such as apple and pear trees, which are susceptible to the disease.<sup>27)</sup>

In this context, the Office action alleges that “*grape vine plants are fruit trees.*”<sup>28)</sup> However, vines generally are plants whose stem requires support and which climb by tendrils or twining or which creep along the ground.<sup>29)</sup> Trees, in contrast thereto, generally are woody perennial plants having a single usually elongate main stem generally with few or no branches on its lower part.<sup>30)</sup> The allegation that grapevine plants are fruit trees, or would be considered as such by a person having ordinary skill in the pertinent art, is therefore deemed to be without basis.

While conceding that “*Evans et al do [sic] not teach an invention comprising grapevine plants or an invention comprising increasing amounts of flavonoids and other phenolic compounds*”<sup>31)</sup> the Office action asserts that “*the step of applying the compound of formula I to the fruit tree in the claim is also carried out by Evans et al; thus, it is obvious that the flavonoids and other phenolic compounds would increase in the fruits of Evans et al.*”<sup>32)</sup> and that “[s]ince Evans et al teach the treatment of fruit trees with instant compound of formula I, it would have been obvious to try treating any fruit treat [sic], including the grape tree or vines, with the instant compound of formula.”<sup>33)</sup> It is respectfully urged that the summary of the reference is not a fair representation of what the prior art reasonably conveyed to a person having ordinary skill in the pertinent art.

*Evans* makes clear that the treatment is specifically aimed at controlling fire blight in such trees which are susceptible to the disease, e.g., apple and pear trees.<sup>27)</sup> Further fruit trees falling within the group of susceptible plants which are mentioned in the reference are “*plants bearing pome fruit such as apples, pears and quince,*”<sup>34)</sup> and plants “*belonging to the genera: Crotonaster,*

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27) Col. 1, indicated lines 13 to 17, in conjunction with col. 2, indicated lines 62 to 65, of US 6,022,831.

28) Office action page 4, lines 9 and 10.

29) Cf. vine. (2009). In Merriam-Webster Online Dictionary. Retrieved November 30, 2009, from <http://www.merriam-webster.com/dictionary/vine>

30). Cf. tree. (2009). In Merriam-Webster Online Dictionary. Retrieved November 30, 2009, from <http://www.merriam-webster.com/dictionary/tree>

31) Office action page 4, lines 8 and 9.

32) Office action page 4, lines 10 to 12.

33) Office action page 4, lines 16 to 18.

34) Col. 2, indicated line 66, to col. 3, indicated line 1, in conjunction with col. 5, indicated lines 18 to 63, of US 6,022,831.

*Crataegys, Cydonia, Photinia, Pyracantha, and Sorbus.*”<sup>35)</sup> Notably, the genus *Vitis* to which grape vines belong is neither mentioned nor suggested in the reference. As such, the teaching of *Evans* cannot be deemed to have suggested to one of ordinary skill in the art to treat fruit bearing plants in general. Also, bearing in mind that the grapevines are not generally considered as fruit trees, the reference cannot be deemed to suggest the treatment of grapevines to one of ordinary skill in the pertinent art.

The Office action further proposes that “[a]ccording to KSR, it would have been obvious to try applying the instant compound of formula I to any fruit plant, including the grapevine plant as claimed, since *Evans et al.* teach broadly the application of the compound of formula I to fruit plants.”<sup>36)</sup> However, as explained in the foregoing, grapevines generally cannot be deemed to be trees, and the reference cannot be considered to broadly teach the application of the compounds to any and all fruit bearing plants. Rather, the teaching of *Evans* specifically targets those fruit trees which are susceptible to fire blight.

The assertions and propositions made in alleged support of the rejection of applicants’ claims on the basis of the teaching of *Evans*, therefore, are merely conclusory statements which lack the rational underpinning which is necessary to support a conclusion of obviousness. Moreover, upon review of the reference and evaluation of what the reference reasonably conveyed to a person of ordinary skill in the pertinent art, the teaching of *Evans* cannot be deemed to establish that the subject matter of applicants’ claims was obvious within the meaning of Section 103(a).

Therefore, it is respectfully urged that the subject matter of applicants’ Claims 1 to 4, 6, 7, 9 to 12, 14 and 15 is patentable under the provisions of Section 103(a) in light of the teaching of *Evans*. Withdrawal of the rejection is therefore deemed appropriate and is respectfully solicited.

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35) Col. 6, indicated lines 64 to 67, of *US 6,022,831*.

36) Office action page 4, lines 18 to 21, and Office action page 5, lines 4 to 7.